

WEST Search History

DATE: Tuesday, June 11, 2002

<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
side by side			result set
<i>DB=USPT; PLUR=YES; OP=ADJ</i>			
L6	l1 and (plant growth or flower\$)	16	L6
L5	l1 and (plant growth or flower?)	11	L5
L4	l1 and (gene or cdna or coding region)	44	L4
L3	l1 and paclobutrazol	2	L3
L2	L1 and transgenic	12	L2
L1	gai or gibberellin insensitive	312	L1

END OF SEARCH HISTORY

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* * * * * Welcome to STN International * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 Jan 25 BLAST(R) searching in REGISTRY available in STN on the Web
NEWS 3 Jan 29 FSTA has been reloaded and moves to weekly updates
NEWS 4 Feb 01 DKILIT now produced by FIZ Karlsruhe and has a new update frequency
NEWS 5 Feb 19 Access via Tymnet and SprintNet Eliminated Effective 3/31/02
NEWS 6 Mar 08 Gene Names now available in BIOSIS
NEWS 7 Mar 22 TOXLIT no longer available
NEWS 8 Mar 22 TRCTHERMO no longer available
NEWS 9 Mar 28 US Provisional Priorities searched with P in CA/CAPLUS and USPATFULL
NEWS 10 Mar 28 LIPINSKI/CALC added for property searching in REGISTRY
NEWS 11 Apr 02 PAPERCHEM no longer available on STN. Use PAPERCHEM2 instead.
NEWS 12 Apr 08 "Ask CAS" for self-help around the clock
NEWS 13 Apr 09 BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS 14 Apr 09 ZDB will be removed from STN
NEWS 15 Apr 19 US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
NEWS 16 Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS 17 Apr 22 BIOSIS Gene Names now available in TOXCENTER
NEWS 18 Apr 22 Federal Research in Progress (FEDRIP) now available
NEWS 19 Jun 03 New e-mail delivery for search results now available
NEWS 20 Jun 10 MEDLINE Reload
NEWS 21 Jun 10 PCTFULL has been reloaded

NEWS EXPRESS February 1 CURRENT WINDOWS VERSION IS V6.0d,
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AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002
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FILE 'HOME' ENTERED AT 16:46:58 ON 11 JUN 2002

=> file agricola caplus biosis
COST IN U.S. DOLLARS

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FILE 'AGRICOLA' ENTERED AT 16:47:17 ON 11 JUN 2002

FILE 'CAPLUS' ENTERED AT 16:47:17 ON 11 JUN 2002
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FILE 'BIOSIS' ENTERED AT 16:47:17 ON 11 JUN 2002
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=> s gai or gibberllic acid insensitive
L1 684 GAI OR GIBBERLLIC ACID INSENSITIVE

=> s l1 and plant?
L2 212 L1 AND PLANT?

=> s l2 and (gene or cdna or coding region)
L3 103 L2 AND (GENE OR CDNA OR CODING REGION)

=> s l3 and growth
L4 61 L3 AND GROWTH

=> s l4 and (inhibit or antagonize)
L5 3 L4 AND (INHIBIT OR ANTAGONIZE)

=> dup rem l3
<-----User Break----->
u

=> dup rem l5
PROCESSING COMPLETED FOR L5
L6 3 DUP REM L5 (0 DUPLICATES REMOVED)

=> d 1-3 ti

L6 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS
TI Association of dwarfism and floral induction with a grape 'green
revolution' mutation

L6 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS
TI Fruit development is actively restricted in the absence of fertilization
in Arabidopsis

L6 ANSWER 3 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Mutations causing defects in the biosynthesis and response to
gibberellins, abscisic acid and phytochrome B do not inhibit
vernalization in Arabidopsis fca-1.

=> d 1-3 ab

L6 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS
AB The transition from vegetative to reproductive growth is an
essential process in the life cycle of plants. Plant
floral induction pathways respond to both environmental and endogenous
cues and much has been learnt about these genetic pathways by studying
mutants of Arabidopsis. Gibberellins (GAs) are plant
growth regulators important in many aspects of plant
growth and in Arabidopsis they promote flowering. Here we provide
genetic evidence that GAs inhibit flowering in grapevine. A

grapevine dwarf mutant derived from the L1 cell layer of the champagne cultivar Pinot Meunier produces inflorescences along the length of the shoot where tendrils are normally formed. The mutated **gene** *assocd.* with the phenotype is a homolog of the wheat 'green revolution' **gene** *Reduced height-1* (ref. 6) and the Arabidopsis **gene** *GA insensitive (GAI)*. The conversion of tendrils to inflorescences in the mutant demonstrates that the grapevine tendril is a modified inflorescence inhibited from completing floral development by GAs.

L6 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS

AB Flowering **plants** usually require fertilization to form fruit and seed and to initiate floral organ abscission in structures that do not contribute to the fruit. An Arabidopsis mutant that initiates seedless fruit without fertilization (*fwf*) or parthenocarpy was isolated and characterized to understand the factors regulating the transition between the mature flower and the initiation of seed and fruit development. The *fwf* mutant is fertile and has normal **plant growth** and stature. It sets fertile seed following self-pollination and fertilization needs to be prevented to observe parthenocarpy. The initiation of parthenocarpic siliques (fruit) was found to be dependent upon carpel valve identity conferred by *FRUITFULL* but was independent of the perception of gibberellic acid, shown to stimulate parthenocarpy in Arabidopsis following exogenous application. The recessive nature of *fwf* is consistent with the involvement of *FWF* in processes that **inhibit** fruit **growth** and differentiation in the absence of fertilization. The enhanced cell division and expansion in the silique mesocarp layer, and increased lateral vascular bundle development imply *FWF* has roles also in modulating silique **growth** post-fertilization. Parthenocarpy was inhibited by the presence of other floral organs suggesting that both functional *FWF* activity and inter-organ communication act in concert to prevent fruit initiation in the absence of fertilization.

L6 ANSWER 3 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

AB The roles of gibberellins, abscisic acid and phytochrome B in the vernalization response were investigated by combining mutations causing defects in their biosynthesis and response with the Arabidopsis thaliana (L.) Heynh. *fca-1* mutation. The *fca-1* mutation confers a very late-flowering phenotype which can be reversed to wild-type flowering if the seedlings are vernalized. Vernalization was unaffected in *gal-3*, **gai**, *abi1-1*, *abi2-1*, *abi3-1* and *phyB-1* backgrounds, suggesting that gibberellin action mediated via *GAI* and *GAI*, abscisic acid action mediated through *ABI1* and *ABI2*, and phytochrome B, function independently of vernalization. However, the mutations did interact with *fca-1* to change flowering time in the absence of vernalization. The *abi1 fca-1* and *abi2 fca-1* double mutants flowered earlier than *fca-1* implying a role for abscisic acid in floral repression. Combination of *gal-3* or **gai** with *fca-1* unexpectedly resulted in opposite interactions, with **gai** partially suppressing the late flowering of *fca-1*.

=> d 1-3 so

L6 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS

S0 Nature (London, United Kingdom) (2002), 416(6883), 847-850
CODEN: NATUAS; ISSN: 0028-0836

L6 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS

S0 Development (Cambridge, United Kingdom) (2001), 128(12), 2321-2331
CODEN: DEVPED; ISSN: 0950-1991

L6 ANSWER 3 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

S0 Planta (Berlin), (March, 2000) Vol. 210, No. 4, pp. 677-682.

ISSN: 0032-0935.

=> s l3 and paclobutrazol
L7 4 L3 AND PACLOBUTRAZOL

=> dup rem l7
PROCESSING COMPLETED FOR L7
L8 3 DUP REM L7 (1 DUPLICATE REMOVED)

=> d 1-3 ti

L8 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1
TI Molecular and physiological characterization of Arabidopsis **GAI**
alleles obtained in targeted Ds-tagging experiments

L8 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS
TI Arabidopsis RGL1 encodes a negative regulator of gibberellin responses

L8 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2002 ACS
TI Ectopic expression of the tetratricopeptide repeat domain of SPINDLY
causes defects in gibberellin response

=> d ab

L8 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1
AB Bioactive gibberellin (GA) is an essential regulator of vascular
plant development. The **GAI** gene of
Arabidopsis thaliana (L.) Heynh. encodes a product (**GAI**) that is
involved in GA signalling. The dominant mutant **gai** allele
encodes an altered product (**gai**) that confers reduced GA
responses, dwarfism, and elevated endogenous GA levels. Recessive,
presumed loss-of-function alleles of **GAI** confer normal height
and resistance to the GA biosynthesis inhibitor **paclobutrazol**.
One explanation for these observations is that **GAI** is a growth
repressor whose activity is opposed by GA, while **gai** retains a
constitutive repressor activity that is less affected by GA. Previously,
we described **gai-t6**, a mutant allele which contains an insertion
of a maize Ds transposable element into **gai**. Here we describe
the mol. and physiol. characterization of two further alleles (**gai**
-t5, **gai-t7**) identified during the Ds mutagenesis expt. These
alleles confer **paclobutrazol** resistance and normal endogenous GA
levels. Thus the phenotype conferred by **gai-t5**, **gai**
-t6 and **gai-t7** is not due to elevated GA levels, but is due to
loss of **gai**, a constitutively active **plant** growth
repressor.

=> d so

L8 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1
SO Planta (2002), 214(4), 591-596
CODEN: PLANAB; ISSN: 0032-0935

=> d au

L8 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1
AU Peng, Jinrong; Richards, Donald E.; Moritz, Thomas; Ezura, Hiroshi; Carol,
Pierre; Harberd, Nicholas P.

=> s l3 and transgenic

L9 15 L3 AND TRANSGENIC

=> dup rem l9

PROCESSING COMPLETED FOR L9

L10 9 DUP REM L9 (6 DUPLICATES REMOVED)

=> d 1-9 ti

L10 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2002 ACS

TI Arabidopsis RGL1 encodes a negative regulator of gibberellin responses

L10 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2002 ACS

TI Cloning of a vascular-specific promoter from rice Oshox1 gene and its use in making transgenic plants

L10 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2002 ACS

DUPLICATE 1

TI The DELLA motif is essential for gibberellin-induced degradation of RGA

L10 ANSWER 4 OF 9 AGRICOLA

DUPLICATE 2

TI Expression of Arabidopsis GAI in transgenic rice represses multiple gibberellin responses.

L10 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2002 ACS

TI Manipulating the gibberellin response to reduce plant height in Chrysanthemum morifolium

L10 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2002 ACS

DUPLICATE 3

TI Gibberstatin B inhibits the GA-induced expression of .alpha.-amylase expression in cereal seeds

L10 ANSWER 7 OF 9 AGRICOLA

DUPLICATE 4

TI 'Green revolution' genes encode mutant gibberellin response modulators.

L10 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2002 ACS

TI Arabidopsis thaliana gene GAI and mutant derivs., cDNA and protein sequences, and plant transgenesis to produce dwarf phenotypes

L10 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2002 ACS

TI Transposon-associated somatic gai-loss sectors in Arabidopsis

=> d ab

L10 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2002 ACS

AB In Arabidopsis, the DELLA subfamily of GRAS regulatory genes consists of GAI, RGA, RGA-LIKE1 (RGL1), RGL2, and RGL3. GAI and RGA are known to be neg. regulators of gibberellin (GA) responses. We found that RGL1 is a similar repressor of GA responses, as revealed by RGL1 gain-of-function and loss-of-function phenotypes. Repression of GA responses in Arabidopsis was conferred by a dominant 35S-rgl1 transgene carrying a DELLA domain deletion analogous to the GA-insensitive gai-1 mutation. As in GA-deficient Arabidopsis, the transgenic plants were dark green dwarfs with underdeveloped trichomes and flowers. Expression levels of GA4, a feedback-regulated GA biosynthetic gene, were increased correspondingly. Conversely, a loss-of-function rgl1 line had reduced GA4 expression and exhibited GA-independent activation of seed germination, leaf expansion, flowering, stem elongation, and floral development, as detected by resistance to the GA biosynthesis inhibitor paclobutrazol. RGL1 plays a greater role in seed germination than do GAI and RGA. The expression profile of RGL1 differed from those of the four other DELLA homologs. RGL1 message levels were predominant in flowers, with transcripts detected in developing ovules and anthers. As with RGA, green

fluorescent protein (GFP)-tagged RGL1 protein was localized to the nucleus, but unlike GFP-RGA, there was no degradn. after GA treatment. These findings indicate that RGL1 is a partially redundant, but distinct, neg. regulator of GA responses and suggest that all DELLA subfamily members might possess sep. as well as overlapping roles in GA signaling.

=> d 4 so

L10 ANSWER 4 OF 9 AGRICOLA DUPLICATE 2
SO The Plant cell, Aug 2001. Vol. 13, No. 8. p. 1791-1802
Publisher: [Rockville, MD : American Society of Plant Physiologists,
c1989-
CODEN: PLCEEW; ISSN: 1040-4651

=> d 4 ab

L10 ANSWER 4 OF 9 AGRICOLA DUPLICATE 2
AB Bioactive gibberellins (GAs) are essential endogenous regulators of plant growth. GA signaling is mediated via **GAI**, a nuclear member of the GRAS family of plant transcription factors. Previous experiments have suggested that **GAI** is a GA-derepressible repressor of plant growth. Here we test this hypothesis by examining the effects of the expression of Arabidopsis **GAI** in transgenic Basmati rice. High-level expression of **GAI** caused dwarfism and reduced GA responses, and the strength of this effect was correlated with the level of transgene expression. In particular, the expression of **GAI** abolished the GA-mediated induction of rice aleurone alpha-amylase activity, thus implicating **GAI** orthologs in the well-characterized cereal aleurone GA response. The GA derepressible repressor model predicts that high-level expression of **GAI** should confer dwarfism, and these observations are consistent with this prediction.

=> d 4 so

L10 ANSWER 4 OF 9 AGRICOLA DUPLICATE 2
SO The Plant cell, Aug 2001. Vol. 13, No. 8. p. 1791-1802
Publisher: [Rockville, MD : American Society of Plant Physiologists,
c1989-
CODEN: PLCEEW; ISSN: 1040-4651

=> d 4 aqu

'AQU' IS NOT A VALID FORMAT

In a multifile environment, a format can only be used if it is valid in at least one of the files. Refer to file specific help messages or the STNGUIDE file for information on formats available in individual files.

REENTER DISPLAY FORMAT FOR ALL FILES (FILEDEFAULT):au

L10 ANSWER 4 OF 9 AGRICOLA DUPLICATE 2
AU Fu, X.; Sudhakar, D.; Peng, J.; Richards, D.E.; Christou, P.; Harberd, N.P.

=> d 5 ab

L10 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2002 ACS
AB The aim of this work is to produce a dwarf (pot) chrysanthemum without the need for growth retardant sprays, by heterologous expression of the mutant **gai** (gibberellic acid insensitive) gene from Arabidopsis

thaliana. The wildtype **GAI gene** encodes a repressor of gibberellin responses which is derepressed by gibberellin itself. The mutant **GAI gene** from Arabidopsis, **gai**, has lost the ability to be derepressed by gibberellin and thus continually suppresses gibberellin responses causing a dwarf phenotype. Several **transgenic** chrysanthemum lines have been produced, which are expressing the transgene and exhibit a range of dwarf phenotypes. Physiol. measurements of growth, chlorophyll content and flowering time have demonstrated the extent of the transgene effects. Evidence so far suggests that **gai** could be used to produce novel pot Chrysanthemum varieties. Further genes are under consideration, which may also be used to change morphol. characteristics and flowering time in chrysanthemum.

=> d 8 ab

L10 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2002 ACS

AB The **GAI gene** of Arabidopsis thaliana has been cloned, along with mutant and homolog **gene** sequences. Expression of such genes in **plants** affects characteristics of the **plants** including growth. **GAI** expression inhibits growth of **plants**, which inhibition is antagonized by gibberellin (GA). Expression of **gai** mutants confers a dwarf phenotype which is GA-insensitive. Manipulation of expression of **GAI** and **gai** genes in **plants** results in tall or dwarfed **plants**. Dwarf **plants** are useful in particular for redn. in crop losses resulting from lodging.

=> d 8 so

L10 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2002 ACS

SO PCT Int. Appl., 76 pp.
CODEN: PIXXD2

=> d 8 pi

L10 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2002 ACS

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9729123	A2	19970814	WO 1997-GB390	19970212
WO 9729123	A3	19971023		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2244229	AA	19970814	CA 1997-2244229	19970212
AU 9717996	A1	19970828	AU 1997-17996	19970212
AU 723363	B2	20000824		
EP 904290	A2	19990331	EP 1997-903442	19970212
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
CN 1228784	A	19990915	CN 1997-193739	19970212
JP 2000505290	T2	20000509	JP 1997-528314	19970212
US 6307126	B1	20011023	US 1998-117853	19980812
US 2002049995	A1	20020425	US 2001-911513	20010725

=> d 8 in

L10 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2002 ACS
IN Harberd, Nicholas Paul; Peng, Jinrong; Carol, Pierre; Richards, Donald Ernest

=> s l1 and transgenic not plant

L11 5 L1 AND TRANSGENIC NOT PLANT

=> d 1-5 ti

L11 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2002 ACS
TI The DELLA motif is essential for gibberellin-induced degradation of RGA

L11 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2002 ACS
TI Gibbestatin B inhibits the GA-induced expression of .alpha.-amylase expression in cereal seeds

L11 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2002 ACS
TI Co-expression of genes for .alpha.-amylase and glucoamylase genes in **transgenic** *Saccharomyces cerevisiae*

L11 ANSWER 4 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI The DELLA motif is essential for gibberellin-induced degradation of RGA.

L11 ANSWER 5 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Gibbestatin B inhibits the GA-induced expression of alpha-amylase expression in cereal seeds.

=> d 3 ab

L11 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2002 ACS
AB Recombinant plasmid pMAG11 was prepd. by inserting the cDNA for glucoamylase **GAI** lacking the 5' non-coding region of *A. niger* and the cDNA for .alpha.-amylase of barley into an *Escherichia coli*-yeast shuttle vector. Plasmid pMAG11 was then transformed into *Saccharomyces cerevisiae* GRF18. The .alpha.-amylase and glucoamylase genes under the control of PGK promoter and terminator were efficiently expressed in **transgenic** strain GRF18(pMAG11) and 99% of the expressed product secreted into the medium. The engineered strain hydrolyzed 99% of the starch in YPS medium contg. 15% sol. starch within 44 h. The starch hydrolyzate was used for fermn. and ethanol prodn.

=> d 5 ab

L11 ANSWER 5 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AB The expression of alpha-amylase in aleurone layers of barley is known to be induced by gibberellin A3 (GA). In the present study, gibbestatin B (GNB) was isolated from *Streptomyces* sp. C-39 as an inhibitor of the GA-induced expression of alpha-amylase in barley and rice, with IC50 values of 125 and 70 muM, respectively. GNB suppressed accumulation of GA-induced barley high-pI type B and rice RAmy1A alpha-amylase transcripts. However, GNB showed inhibitory activity on GUS expression in **transgenic** tobacco harboring the auxin-inducible par B promoter:: GUS fusion gene. The transcription of an abscisic acid (ABA)-inducible gene, HVA1, was unaffected by GNB. In addition, GNB prevented aleurone cells from cell death induced by GA. In tobacco and *Arabidopsis* plants, GNB suppressed the germination and retarded the growth of seedlings without toxicity. The growth of **gai**, **spy** and **abi** mutants was also retarded by GNB. Normal plants treated with GA-biosynthesis inhibitors and GA-defective and GA-signaling mutants

normally have dwarf dark green leaves. However, dwarfed healthy green leaves were observed in normal plants treated with GNB. GA-induced stem elongation of plants was also detected in the presence of GNB. These analyses indicate that GNB inhibits the GA-induced expression of alpha-amylase by regulating one of the steps involved in ABA signaling, but not by acting as a weak ABA analog.

=> s l1 and transgenic

L12 16 L1 AND TRANSGENIC

=> dup rem l12

PROCESSING COMPLETED FOR L12

L13 10 DUP REM L12 (6 DUPLICATES REMOVED)

=> d 1-10 ti

L13 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2002 ACS

TI Arabidopsis RGL1 encodes a negative regulator of gibberellin responses

L13 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2002 ACS

TI Cloning of a vascular-specific promoter from rice Oshox1 gene and its use in making **transgenic** plants

L13 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2002 ACS

DUPLICATE 1

TI The DELLA motif is essential for gibberellin-induced degradation of RGA

L13 ANSWER 4 OF 10 AGRICOLA

DUPLICATE 2

TI Expression of Arabidopsis **GAI** in **transgenic** rice represses multiple gibberellin responses.

L13 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2002 ACS

TI Manipulating the gibberellin response to reduce plant height in Chrysanthemum morifolium

L13 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2002 ACS

DUPLICATE 3

TI Gibbestatin B inhibits the GA-induced expression of .alpha.-amylase expression in cereal seeds

L13 ANSWER 7 OF 10 AGRICOLA

DUPLICATE 4

TI 'Green revolution' genes encode mutant gibberellin response modulators.

L13 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2002 ACS

TI Co-expression of genes for .alpha.-amylase and glucoamylase genes in **transgenic** Saccharomyces cerevisiae

L13 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2002 ACS

TI Arabidopsis thaliana gene **GAI** and mutant derivs., cDNA and protein sequences, and plant transgenesis to produce dwarf phenotypes

L13 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2002 ACS

TI Transposon-associated somatic **gai**-loss sectors in Arabidopsis

=> d 7 ab

L13 ANSWER 7 OF 10 AGRICOLA

DUPLICATE 4

AB World wheat grain yields increased substantially in the 1960s and 1970s because farmers rapidly adopted the new varieties and cultivation methods of the so-called 'green revolution'. The new varieties are shorter, increase grain yield at the expense of straw biomass, and are more resistant to damage by wind and rain. These wheats are short because they respond abnormally to the plant growth hormone gibberellin. This reduced response to gibberellin is conferred by mutant dwarfing alleles at one of

two Reduced height-1 (Rht-B1 and Rht-D1) loci. Here, we show that Rht-B1/Rht-D1 and maize dwarf-8 (d8) are orthologues of the Arabidopsis Gibberellin Insensitive (**GAI**) gene. These genes encode proteins that resemble nuclear transcription factors and contain an SH2-like domain, indicating that phosphotyrosine may participate in gibberellin signalling. Six different orthologous dwarfing mutant alleles encode proteins that are altered in a conserved amino-terminal gibberellin signalling domain. **Transgenic** rice plants containing a mutant **GAI** allele give reduced responses to gibberellin and are dwarfed, indicating that mutant **GAI** orthologues could be used to increase yield in a wide range of crop species.

=> d 7 so

L13 ANSWER 7 OF 10 AGRICOLA DUPLICATE 4
 SO Nature, July 15, 1999. Vol. 400, No. 6741. p. 256-261
 Publisher: London : Macmillan Magazines Ltd.
 CODEN: NATUAS; ISSN: 0028-0836

=> d 7 au

L13 ANSWER 7 OF 10 AGRICOLA . DUPLICATE 4
 AU Peng, J.; Richards, D.E.; Hartley, N.M.; Murphy, G.P.; Devos, K.M.;
 Flintham, J.E.; Beales, J.; Fish, L.J.; Worland, A.J.; Pelica, F.

=> s gibberellin insensitive

L14 80 GIBBERELLIN INSENSITIVE

=> s l14 and plant?

L15 60 L14 AND PLANT?

=> s l15 and transgenic

L16 7 L15 AND TRANSGENIC

=> dup rem l16

PROCESSING COMPLETED FOR L16

L17 3 DUP REM L16 (4 DUPLICATES REMOVED)

=> d 1-3 ti

L17 ANSWER 1 OF 3 AGRICOLA DUPLICATE 1
 TI Rice **gibberellin-insensitive** dwarf mutant gene Dwarf 1
 encodes the alpha-subunit of GTP-binding protein.

L17 ANSWER 2 OF 3 AGRICOLA DUPLICATE 2
 TI 'Green revolution' genes encode mutant gibberellin response modulators.

L17 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2002 ACS
 TI Transposon-associated somatic gai-loss sectors in Arabidopsis

=> d 3 ab

L17 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2002 ACS
 AB The gai mutation of Arabidopsis confers reduced gibberellin responses, and is inherited as a semidominant trait. Somatic sectors displaying wild-type phenotype were obsd. in **plants** which were heterozygous for gai and for a linked Ds element, and which also contained a source of the Ac transposase function. The frequency of these sectors was correlated with the level of transposase conferred by the transposase source, suggesting that the sectors are the result of transposon activity.

The appearance of the sectors indicates that gai phenotype is restricted to cells contg. a functional gai gene copy.

=> d 3 so

L17 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2002 ACS
SO Plant Science (Shannon, Ireland) (1997), 130(2), 181-188
CODEN: PLSCE4; ISSN: 0168-9452